CLAIMS:

1. An apparatus, comprising:

a laser cavity, wherein said laser cavity comprises at least three mirrors, at least one filter and a plurality of crystals, wherein said at least three mirrors are substantially arranged in a lambda configuration, said at least one filter comprises a birefringent filter and an etalon, at least one of said plurality of crystals comprises a Coloquiriite crystal, and at least one of said plurality of crystals comprises a nonlinear crystal, wherein said at least three mirrors, said at least one filter, and said plurality of crystals are configured for providing electromagnetic radiation of an approximately single frequency; and

at least one electromagnetic radiation source being coupled to the laser cavity, wherein said at least one electromagnetic radiation source is capable of providing electromagnetic radiation having an approximately particular wavelength to said laser cavity.

2. The apparatus of claim 1, wherein said at least one electromagnetic radiation source comprises a laser diode.

3. The apparatus of claim 1, wherein said apparatus is capable of providing electromagnetic radiation within approximately the blue region of the electromagnetic spectrum.

4. The apparatus of claim 1, wherein at least one of said plurality of crystals is configured to, in operation, alter one or more properties of said electromagnetic radiation provided by said laser diode.

5. The apparatus of claim 4, wherein at least one of said one or more properties comprises electromagnetic radiation wavelength.

6. The apparatus of claim 1, wherein said nonlinear crystal is configured to convert at least a portion of said electromagnetic radiation of an approximately

particular wavelength to radiation having approximately half said approximately particular wavelength.

7. The apparatus of claim 1, wherein said at least one filter is configured to filter at least a portion of the electromagnetic radiation altered by at least one of said plurality of crystals, wherein the at least one filter is adjustable.

8. The apparatus of claim 1, wherein said at least one of said plurality of crystals comprising a Coloquiriite crystal is capable of altering electromagnetic radiation so as to produce electromagnetic at least approximately within a wavelength range of approximately 750 nanometers to approximately 850 nanometers, and wherein said at least one of said plurality of crystals comprising a nonlinear crystal comprises a lithium triborate crystal capable of altering electromagnetic radiation so as to produce electromagnetic radiation approximately within the range of approximately 375 nanometers to approximately 425 nanometers.

9. The apparatus of claim 2, wherein said laser diode is capable of producing electromagnetic radiation with a wavelength of approximately 670 nanometers.

10. The apparatus of claim 1, wherein at least one of said plurality of mirrors comprises a dielectric mirror, wherein said dielectric mirror has at least approximately a particular reflectivity.

11. The apparatus of claim 1, wherein at least one filter comprises a quartz birefringent filter.

12. The apparatus of claim 11, wherein said quartz birefringent filter further comprises three plates of quartz birefringent.

13. The apparatus of claim 12, wherein said quartz birefringent filter is capable of being adjusted by altering the orientation of one or more plates.

14. The apparatus of claim 11, wherein said filter is capable of being adjusted such that the wavelength of electromagnetic radiation substantially passing through the filter is altered by at least approximately fractions of a nanometer.

15. The apparatus of claim 7, wherein said apparatus is incorporated within a holographic data recording system, said holographic data recording system further comprising one or more photosensitive recoding mediums, said laser source being configured to, in operation:

provide one or more laser beams to said photosensitive recording medium; and

form an image in said photosensitive recording medium.

16. A method of generating a laser beam, comprising:

providing energy to a first crystal, wherein said first crystal produces electromagnetic radiation in response to said provided energy;

filtering at least a portion of the electromagnetic radiation produced by said first crystal;

altering the wavelength of at least a portion of said filtered electromagnetic radiation by passing at least a portion of said filtered electromagnetic radiation through a second crystal two or more times; and

providing an output laser beam, wherein said output laser beam comprises at least a portion of said altered electromagnetic radiation and at least a portion of said filtered electromagnetic radiation.

17. The method of claim 16, wherein said first crystal comprises a lasing crystal.

18. The method of claim 17, wherein providing energy to a lasing crystal further comprises:

providing electromagnetic radiation with a wavelength of approximately 670 nanometers to said lasing crystal, wherein said lasing crystal is capable of, in operation, producing electromagnetic radiation approximately within the red to near infrared region of the electromagnetic spectrum in response to said provided electromagnetic radiation.

19. The method of claim 17, wherein said filtering further comprises:

filtering a portion of said electromagnetic radiation approximately within the red to near infrared region, such that electromagnetic radiation substantially passing through the filter comprises electromagnetic radiation of a smaller wavelength range than that of said electromagnetic radiation approximately within the red to near infrared region.

20. The method of claim 17, wherein said altering the wavelength further comprises:

converting at least a portion of said filtered electromagnetic radiation to electromagnetic radiation having a wavelength of approximately half of the wavelength of said filtered electromagnetic radiation.

21. The method of claim 20, wherein said converted electromagnetic radiation comprises electromagnetic radiation having a wavelength approximately within the blue region of the electromagnetic spectrum.

22. The method of claim 21, wherein said electromagnetic radiation approximately within the blue region of the spectrum comprises electromagnetic radiation of an approximately particular wavelength.

23. A laser system, comprising:

a laser source;

two or more crystals, wherein one crystal comprises a laser crystal, and one crystal comprises a nonlinear crystal;

at least three mirrors, substantially arranged in a lambda configuration; and

one or more filters, said laser source, said one or more crystals, at least three mirrors and said one or more filters being configured such that said laser source is capable of producing electromagnetic radiation within a particular wavelength range, at least one of said two or more crystals being configured to alter one or more properties of said electromagnetic radiation, and at least one of said one or more filters being configured to filter at least a portion of the electromagnetic radiation altered by said two or more crystals, wherein the portion filtered is adjustable.

24. The laser system of claim 23, wherein at least two of said two or more crystals comprise at least a Coloquiriite crystal and a lithium triborate crystal, said Coloquiriite crystal being capable of absorbing electromagnetic radiation so as to produce electromagnetic radiation within a wavelength range of approximately 750 nanometers to 850 nanometers, and said lithium triborate crystal being capable of altering electromagnetic radiation so as to produce electromagnetic radiation approximately within the range of approximately 375 nanometers to 425 nanometers.

25. The laser system of claim 24, wherein said laser system is capable of producing electromagnetic radiation within approximately the blue region of the electromagnetic spectrum.

26. The laser system of claim 24, wherein said at least one of said one or more filters comprising three plates of quartz birefringent, wherein said quartz birefringent plates are capable of being adjusted by altering the orientation of one or more plates.

27. The laser system of claim 26, wherein said filter is capable of being adjusted such that the wavelength of electromagnetic radiation substantially passing through the filter is altered by approximately fractions of a nanometer.

28. The laser system of claim 24, wherein said laser system is incorporated within a holographic data recording system, said holographic data recording system further comprising one or more photosensitive recoding mediums, said laser system being configured to, in operation:

provide electromagnetic radiation to said photosensitive recording medium; and

form an image in said photosensitive recording medium.

29. An apparatus, comprising:

means for producing a laser beam, wherein said laser beam comprises electromagnetic radiation substantially within a particular wavelength range; and

means for varying the wavelength range of said laser beam.

30. The apparatus of claim 29, wherein said wavelength is variable within the blue region of the electromagnetic spectrum.